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**T-1**

**Assessment and effectiveness** (chair: Anita Pásztor-Kovács)

## **DOES THE USE OF ICT PREDICT LOWER PISA2018 READING SCORES FOR STUDENTS WITH SUPPORT NEEDS?**

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Research has shown that the use of information and communication technologies (ICT) in leisure time and at school is related to lower level of school performance. PISA studies have also shown that higher levels of ICT use is related to lower scores in reading literacy. These results have been interpreted as an indication of the harmful effects of digitalisation in education. However, these interpretations are made based on cross-sectional data, and it could be possible that the causal effect goes the other way. Therefore, we test the hypothesis that ICT is used as means of support by targeting more ICT use to students performing lower at school. In PISA 2018, we collected data about the level of educational support the participating students received based on special educational needs or other challenges in learning and merged it with the data as a national option. In the analyses, we used the plausible values for reading first as continuous variables, and then also categorising students in the six proficiency level groups of PISA. From the ICT questionnaire, we utilised the data regarding ICT use at school and at leisure time. We analysed the data running multiple group regression analyses in Mplus with school-level clustering and taking into account student weight coefficients, predicting students' reading scores by ICT use. The results showed that like in earlier studies, ICT use at school was negatively related to reading literacy score. However, the ICT use explaining only one to three percent of the variation in reading literacy scores. Analysed by proficiency levels and comparing students receiving educational support to those without support needs, we examined whether these different levels of student performance explained negative effects of ICT use at school on reading literacy scores. On average, students at the lowest levels, and students receiving educational support, used ICT in school more than those at higher performance levels or students who did not have support needs. In the next stage of the analyses, we will perform the same analyses regarding the ICT use at leisure time. Based on the results regarding ICT use at school, we argue that previous interpretations of the negative effects of ICT use on learning outcomes have been overstated and that the results primarily reflect the use of ICT as a tool for differentiation and support lower performing students.